

10/605,785

REMARKS

In the Office Action claims 17-24 were rejected. Applicants have canceled claims 21-24 and added new claims 25-28. Upon entrance of this Amendment claims 17-20 and 25-28 will be pending in the present application. Reconsideration is respectfully requested.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 17, 19, 21, 23 and 24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,792,863 to Evans in view of U.S. Patent No. 4,940,236 to Allen. Dependent claims 18 and 20 were rejected as being obvious over Evans and Allen and further in view of U.S. Patent No. 5,472,205 to Bouton, and dependent claim 22 was rejected as being obvious over Evans and Allen and further in view of U.S. Patent No. 5,792,000 to Weber et al. Applicants respectfully disagree.

Independent claim 17 recites a diagnostic golf club system comprising in part a diagnostic golf club with "an internal memory device including a non-volatile flash buffer memory...wherein the internal memory device is capable of storing data for multiple swings of the diagnostic golf club until the data is uploaded to the computer via the interface mechanism." The invention of claim 17 provides a diagnostic golf club system in which the diagnostic golf club is capable of storing in the golf club swing data obtained by the strain gauges on the golf club. The data is stored in the golf club until it is transferred, via an interface mechanism, to a separate computer. The internal, non-volatile flash buffer memory can store temporal data for up to 60 swings of the golf club before the data must be uploaded to a computer. Such a diagnostic golf club system is more flexible, since the user with the diagnostic golf club need not be anywhere near a computer for multi-swing data capture to occur.

10/605,785

Applicants respectfully submit that no combination of Evans and Allen would make obvious the invention of claim 17. Evans discloses an athletic swing measurement system that uses radio or wire means to immediately transmit data from the athletic apparatus to a remote recording or playback console. Fig. 1 of the Evans patent shows that data is stored in a digital memory 36, 38 or 40 only after it has been transmitted from the golf club 10 to the FM receiver 30, and Evans states, "The receiver 30 and other signal processing and display circuits and components described below may be housed in a record/playback console." Col. 2, lines 35-38. Thus, Evans fails to disclose an internal memory device in the diagnostic golf club, much less one having a non-volatile flash buffer memory.

Allen discloses a golf club with a self-contained ball distance computer and a visual display LCD assembly "to display direct total yardage traveled by the impacted ball." Col. 5, lines 25-26. Applicants respectfully submit that Allen fails to disclose a memory like that recited in independent claim 17. Although the word "memory" is mentioned in the Allen patent, it appears only twice, at page 8, line 11 and in claim 3, line 4. The "memory" that Allen discloses is merely a holding stage 122, which holds a DC level signal at the input of A/D converter 120 for eight seconds while displayed on LCD display 21. See col. 8, lines 54-56. The Allen patent states:

Capacitor 148 integrates the gated transducer signal at input 31. The holding stage 122 provides an eight-second holding pulse for integrating capacitor 148, so that the numerical distance displayed [sic] by display 21 appears for eight seconds and then is reset as capacitor 148 is discharged by stage 122.

Col. 9, lines 25-30. The Allen holding stage is not an internal memory device that includes a non-volatile flash buffer memory. Nor can the Allen holding stage "stor[e] data for multiple swings of the diagnostic golf club until the data is uploaded to the computer via the interface

10/605,785

mechanism," as recited in claim 17. Instead, the Allen golf club briefly stores distance information for a single golf club swing. After each swing the Allen golf club will display a ball distance for only eight seconds, before the holding stage is reset and that signal permanently eliminated.

Applicants respectfully submit that no combination of Evans and Allen would make obvious the invention of claim 17. One of ordinary skill in the art would not have combined the holding stage of Allen with the Evans athletic swing measurement system. The Evans system, which uses radio or wire means to immediately transmit data from the golf club to a remote recording or playback console, provides feedback on club head velocity, twisting or torsion of the club head, and flexure (see Evans, col. 1, line 70 to col. 2, line 2), whereas the Allen golf club provides a single reading of ball distance. Adding the eight-second holding stage disclosed by Allen to the Evans system would be insufficient to store the velocity, torsion and flexure data for even a single swing of the golf club, and there is no motivation to make such a change. Accordingly, Applicants respectfully submit that independent claim 17 is patentable over the combination of Evans and Allen. Claims 18-20 depend from claim 17 and for at least this reason are also patentable over Evans and Allen.

New Claims 25-28

Applicants have added new claims 25-28. Support for these claims may be found throughout the specification and in the drawings. No new matter has been added. Independent claim 25, which requires that a diagnostic golf club include an internal memory device capable of storing multiple swing load measurements until the measurements are transferred to a computer, is patentable over the cited prior art for the reasons discussed above. Claims 26-28 depend from claim 25 and are also patentable over the cited prior art.

10/605,785

In view of the foregoing remarks, Applicants respectfully submit that each of the outstanding rejections has been overcome and that claims 17-20 and 25-28 are in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is invited to telephone Applicants' Attorney, if such would advance the prosecution of this case.

Respectfully submitted,

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